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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/703,782	11/01/00	PFAENDNER R	A-20746/A/CG

000324 IM62/0321
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EXAMINER
SERGENT,R

ART UNIT	PAPER NUMBER
1711	3

DATE MAILED: 03/21/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/703,782	Applicant(s) Pfaendner et al.
	Examiner Rabon Sergent	Group Art Unit 1711

☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *three* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-20, 22-24, 28, 30, and 31* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-20, 22-24, 28, 30, and 31* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☒ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

1. Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term, polycondensate, renders the claim indefinite, because it is unclear with respect to exactly what polymers or types of polymers are encompassed by the language.

2. Claim 31 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for compositions comprising polyesters, polyamides, polycarbonates, or copolymers thereof does not reasonably provide enablement for compositions comprising any polymer resulting from a condensation reaction. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

Applicants have failed to clearly specify what polymers are encompassed by the term, polycondensate, and have failed to provide adequate guidance with respect to how "polycondensates" other than the aforementioned species are to be utilized within the invention. It is not clear that "polycondensate" is limited by the aforementioned polymer species.

3. Claims 1-20, 22-24, 28, 30, and 31 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants have failed to provide adequate enablement with respect to how the process is controlled so that crosslinking or thermosetting does not occur.

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> **A person shall be entitled to a patent unless --**
>
> **(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.**
>
> **(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> **(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.**

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 4-9, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 1-006019 or Gerth et al. ('267) or Pujol et al. ('785) or Emori et al. ('684).

The references each disclose the blending and reaction of dicyanates which correspond to those of applicants with polymers which correspond to those of applicants.

6. Claims 1, 4-9, 18, and 31 are rejected under 35 U.S.C. 102(b or e) as being anticipated by Ikeguchi et al. ('658 or '669) or Kramer et al. ('346) or Powell et al. ('635) or Matsuoka et al. ('548).

The references each disclose the blending and reaction of dicyanates which correspond to those of applicants with polymers which correspond to those of applicants.

7. Claims 1, 4-9, 18, 23, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Gaku et al. ('769).

The reference discloses the blending and reaction of dicyanates which correspond to those of applicants with polymers which correspond to those of applicants.

8. Claims 1, 4-9, 18, 22, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Khanna et al. ('896).

The reference discloses the blending and reaction of dicyanates which correspond to those of applicants with polymers which correspond to those of applicants.

9. Claims 1, 4-9, 23, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Blahak et al. ('001) or Gaku et al. ('805 or '609).

The references each disclose the blending and reaction of dicyanates which correspond to those of applicants with polymers which correspond to those of applicants.

10. Claims 1, 4-9, 22, 23, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 386,358 or Kitagawa et al. ('555).

The references each disclose the blending and reaction of dicyanates which correspond to those of applicants with polymers which correspond to those of applicants.

11. Applicants' language within claim 1 specifying that the products remain thermoformable after the process is insufficient to overcome the art rejections. Firstly, it is unclear how the product limitation further modifies the process. Secondly, applicants have in no way established that the processes of the references fail to produce thermoformable products. As a result, the language fails to patentably distinguish the claims.

12. Claims 1-13, 16-20, 22-24, 28, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 604,367 or WO 95/35343, each in view of JP 1-006019 or Gerth et al. ('267) or Pujol et al. ('785) or Emori et al. ('684) or Ikeguchi et al. ('658 or '669) or Kramer et al. ('346) or Powell et al. ('635) or Matsuoka et al. ('548) or Gaku et al. ('769 or '805 or '609) or Khanna et al. ('896) or Blahak et al. ('001) or EP 386,358 or Kitagawa et al. ('555).

13. The primary references disclose the blending of phosphonic esters or diphosphonites, optionally with difunctional epoxides, with polycondensates to increase the molecular weight of the polycondensates.

14. The primary references are silent regarding the addition of aromatic dicyanates to the compositions; however, the use of dicyanates to modify polymer properties (i.e., by crosslinking or extending) was known at the time of invention. This position is supported by the secondary references. Since it has been held that it is *prima facie* obvious to add a known ingredient for its known function (In re Linder, 173 USPQ 356; In re Dial et al., 140 USPQ 244), and since it has been held *prima facie* obvious to combine components, each of which is known to have the same utility, to yield a composition which is to be used for the same purpose (In re Kerkhoven, 205 USPQ 1069), the position is taken that it would have been obvious to incorporate aromatic dicyanates into the compositions of the primary references, because one would have reasonably expected the dicyanates to perform their polymer modifying functions within the compositions of the primary references.

15. The limitation pertaining to "thermoformable" is not considered to patentably distinguish the claims for the reasons set forth within paragraph 11.

16. Claims 1-20, 22-24, 28, 30, and 31 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

It is unclear if "thermoformable" is equivalent to "thermoplastic". It is unclear with respect to the degree of crosslinking which may be present within a thermoformable polymer. It

is unclear with respect to the characteristics and properties which are definitive of thermoformable polymers.

17. The prior art was supplied during prosection of the parent application.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (703) 308-2982.

RABON SERGENT
PRIMARY EXAMINER

Sergent/af

March 14, 2001